

BALAK, K., kand.med. nauk; SHOBOVA, A. [Sobova, A], kand. biologi-  
cheskikh nauk (Praga)

Use of balneotherapy in climacteric angioneurosis. Akush. i  
gin. no.2:69-71'63. (MIRA 16:10)  
(CLIMACTERIC) (HYDROTHERAPY)  
(NERVOUS SYSTEM, VASOMOTOR — DISEASES)

CZECHOSLOVAKIA

BALAK, K., MD., CSc; SOBOVA, A., RN Dr., CSc; ~~VALENTIN~~ VALENTOVA, J.

Institute of Mother and Child Care (Ustav pro peci o  
matku a dite), Prague-Podoli (for all)

Prague, Prakticky lekar, no 18, 1963, p 700

"Study of Changes in the Total Consumption of Oxygen in  
Pregnant Women and Women in Late States of Gestosis."

FETTER, V.; PROKOPEC, M.; SUCHY, J.; SOBOVA, A.

Accelerated growth in youth determined by anthropometric studies  
between 1951 and 1961. Cesk. pediat. 18 no.8:673-677 Ag '63.

(ANTHROPOMETRY) (BODY WEIGHT) (GROWTH)

SIMONEK, Jiri; SOBR, Josef

Adiabatic exponent of carbon dioxide. Jaderna energie 9  
no.5:162-165 My '63.

1. Statni vyzkumny ustav tepelne techniky.

SOBRA, Josef; KOLBEL, Frantisok

Congenital disorders of lipid metabolism. II. Familial hypercholesterolemic xanthomatosis - clinical study. Acta univ. carol. [med.] no.7: 823-832 '61.

1. III. interni klinika fakulty vseobecneho lekarstvi University Karlovy v Praze, prednosta akademik J. Charvat.  
(LIPOIDOSIS)

SOBRA, J.

Familial hypercholesterolemic xanthomatosis. Congenital disorders of lipid metabolism. Cas.lek.cesk 100 no.7:Lek Veda Zahr:37-42 17 F '61.

1. III.interni klinika fakulty vseobecneho lekarstvi, prednosta akademik J. Charvat.

(LIPOIDOSIS)

SOBRA, Josef; KOLBEL, Frantisek; PROCHAZKA, Bohuslav; SEDLAKOVA, Eva;  
SULC, Miloslav

Congenital lipid metabolism disorders. V. Familial hypercholesterolemic xanthomatosis -- blood cholesterol and phospholipid level.  
Cas. lek. cesk 100 no. 29/30: 928-932 14 J1 '61.

1. III. interni klinika KU v Praze, prednosta akademik Josef Charvat,  
IV. interni klinika KU v Praze, prednosta prof. dr. Mojmir Fucik,  
Angiologicka laborator KU v Praze, reditel prof. dr. Bohumil Prusik.

(LIPOIDOSIS blood) (CHOLESTEROL blood)  
(PHOSPHOLIPIDS blood)

SOBRA, Josef; KOLBEL, Frantisek; PROCHAZKA, Behuslav; SEDLAKOVA, Eva;  
SULC, Miloslav

Congenital lipid metabolism disorders. VI. Familial hypercholesterolemic xanthomatosis -- the level of lipemia, esterified fatty acids and lipoproteins in the blood. Cas.lek.cesk 100 no.29/30:933-936 14 JI '61.

1. III. interni klinika KU v Praze, prednosta akademik Josef Charvat,  
IV. interni klinika KU v Praze, prednosta prof. dr. Mojmir Fucik,  
Angiologicka laborator KU v Praze, reditel prof. dr. Bohumil Prusik.

(LIPOIDOSIS blood) (LIPOPROTEINS blood)  
(FATTY ACIDS blood)



SOBRA, J.

Congenital disorders of lipid metabolism. VII. Hypocholesterolemic effect of phytosterol. Cas.lek.cesk 101 no.3: Lek Veda Zahr 9-12 19 Ja '62.

1. III interni klinika KU v Praze, prednosta akademik Josef Charvat.

(STEROLS pharmacol) (CHOLESTEROL blood)

SOBRA, J.

4 3

CZECHOSLOVAKIA

SOBRA, J; PROCHAZKA, B; SEDLAKOVA, E; SULC, M.

1. Third Internal Medicine Clinic of the Faculty of General Medicine (III. vnitřní klinika fak. všeob. lek.), Brno; 2. Fourth Internal Medicine Clinic of the Faculty of General Medicine (IV. vnitřní klinika fak. všeob. lek.), Brno; 3. Angiological Laboratory FVL UK (Angiologická laborator FVL UK), Brno

Prague

Brno, Vnitřní lékařství, No 7, 1963, pp 642-649

"Inborn Errors of Lipid Metabolism VIII. Familial Hypercholesterolemic Xanthomatosis. Influence of Phytosterols on Blood Lipid Level."

SOBRA, J.

CZECHOSLOVAKIA

PRIC., G. SOBRA, J.; BEDNAR, B., Prof. Dr. Dr. Sc; LOUDA, Z;  
LEPSIK, J.

1. Second Scientific-Research Laboratory of Gastroenterology of the Faculty of General Medicine of KU (II. vedeckovyzkumne pracoviste pro gastroenterologii fakulty vseobecneho lekarstvi KU), Prague; 2. Third Internal Medicine Clinice (III. vnitri klinika), Prague; 3. Main First Pathological Anatomy Institute Hlavni I. patologicko-anatomicky ustav (for Bednar).

Prague, Vnitri lekarstvi, No 8, 1963, pp 782-788

"Whipple's Disease."

CZECHOSLOVAKIA

SOBRA, J.; Third Clinical Department of Internal Medicine, Medical Faculty of Charles University (III. interni klinika lekarske fakulty Karlove University,) Prague.

"Congenital Defects of Lipid Metabolism. Cholesterol Metabolism and Current Concepts of Feedback Controls in its Biosynthesis."

Prague, Ceskoslovenska Fysiologie, Vol 12, No 4, July 1963; pp 262-272.

Abstract: Review: biosynthesis of cholesterol, effects of various substances thereon (elements, vitamins, other steroids, triparanol and other drugs,) metabolism of exogenous cholesterol, cholesterologenesis in congenital lipid metabolism defects; role of feedback inhibition in anabolic and catabolic processes. Six diagrams including metabolic flow-chart, structural formulae; One Japanese, 14 Czech (include unpublished work) and 58 Western references.

1/1

32

dicine (Fakulty vseobecneho lekarstvi), Charles University, Prague, Academician J. CHARVAT, director; and Angiological Laboratory (Angiologicka laborator), Faculty of General Medicine, Charles University, Prague, Prof. Dr. B. PRUSIK, director [indicated by a handwritten note: "determined"]

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651910014-3"

"Congenital Defects in the Lipid Metabolism. X. Familial Hypercholesterol Xantomatosis. A Finding of Hyperproteinemia"

Prague, Casopis Lekaru Ceskych, Vol CII, No 25, 21 June 63, pp 699-700.

Abstract: Described is a test the purpose of which was to eliminate the interference of an increased level of blood lipides in the refractometric test. Serum nitrogen was determined by means of a microchemical method and a gradient cylinder was used to determine proteinemia, both operations being part of a refractometric determination. A table contains comparative data found in normal persons and patients suffering from familial hypercholesterol xantomatosis. Sixteen references, including 13 Czech.

1/1

SOERA, J.

Congenital disorders of metabolism. Cesk. fysiол. 13 no.5:  
469-481 0 '64.

1. III. interni klinika fak, vseob. lekarstvi, Praha.

MYSKA, V.; OTRADOVEC, J.; KLOUCEK, F.; SOBRA, J.; PROCHAZKA, B.

Mucocutaneous form of eosinophilic xanthomatous granuloma with severe corneal involvement in an adult man. Cesk. oftal. 20 no. 5:360-368 S '64.

1. II oční klinika fakulty všeobecného lékařství Karlovy University v Praze (prednosta akademik J. Kurz<sup>1</sup>); III interní klinika fakulty všeobecného lékařství Karlovy University v Praze (prednosta akademik J. Charvat) a IV. interní klinika fakulty všeobecného lékařství Karlovy University v Praze (prednosta prof. dr. M. Fucik).

SOBRA, J.

Congenital disorders of lipid metabolism. XII. Hypocholesteremic effect of triparanol. Cas. lek. cesk. 103 no.3:14-18 17 Ja'64.

1. III. interni klinika fakulty vseobecneho lekarstvi KU v Praze; prednosta: akademik J.Charvat.

\*

KOLBEL,F.; PROCHAZKA,B.; SOBRA,J.; SULC,M.

Disorders of fat metabolism in acromegaly. Cas.lek. cesk. 103  
no.6:165-166 7 Mr'64

\*



PACOWSKI, V.; HRADCOVA, L.; SOUBRA, J.

Familial orthostatic proteinuria -- a new tubular syndrome?  
Cas. lek. cesk. 103 no.36:1005-1006 14 S '64.

1. III interni klinika fakulty vseobecneho lekarstvi Karlovy  
University v Praze (prednosta akademik J. Charvat); IV detska  
klinika fakulty vseobecneho lekarstvi Karlovy University v  
Praze (prednosta prof. dr. F. Blazek).

DUBOVSKÝ, J.; SOBRA, J.; DUBOVSKÁ, E.

Familial hyperglycocalaciduria in xeroderma pigmentosum. Cas.  
lek. cesk. 103 no.44:1219-1222 30 0 '64.

1. III. interni klinika fakulty vseobecneho lekarstvi Karlovy  
University v Praze (prednosta akademik J. Charvat).

SOBNA, J.; KOLBEL, P.; KAPITOLA, J.; PROCHAZKA, B.; SEDLAKOVA, E.; SULC, M.

Genealogical study of familial hypercholesterolemic xanthomatosis.  
Acta univ. Carol. [med] (Praha): Suppl. 18: 165-169 '64.

I. III. interní klinika fakulty všeobecného lékařství University  
Karlovy v Praze (prednosta: akademik prof. dr. J. Charvat); IV.  
interní klinika fakulty všeobecného lékařství University Karlovy  
v Praze (prednosta: prof. dr. M. Fucik) a Angiologická laborator  
fakulty všeobecného lékařství University Karlovy v Praze (reditel:  
prof. dr. B. Prusik).

JIRKA, M.; SABA, J.

Coincidence of malignancy in Becklinghausen's neurofibromatosis.  
Cesk. dermat. 10 no.6:402-407 5 195.

I. I. dermato-venerologicka klinika (prednosta prof. dr. J. Kohnopik, DrSc.) a III. interni klinika (prednosta akademik J. Charvat) fakulty všeobecného lékařství Karlovy University v Praze.



SOBRA, KAREL

AGRICULTURE

Nauka o vysetreni a priznaciach vnitrnich chorob kone a psa. Praha, Statni pedagogicke nakl., 1958. 238 p. (Ucebni texty vysokych skol)

DA Not in DLC

Monthly Index of East European Accessions (EEAI) LC, Vol., 8, No. 4, April 1959

SOBR, K.

ZILKA, V.N.; SOBRA, K.

Notes of secondary energy processes in spark discharges. Chekh.fiz.  
zhur. 3 no.2:171-174 Je '53. (MLBA 7:6)

1. Institut tekhnicheskoy fiziki, Praga.  
(Electric spark)

SOBRA, KAREL.

Choroby drubere. (1. vyd.) Praha, Statni pedagogicke  
nakl., 1954. 175 p. (Ucebnitexty vysokych skol)

SOURCES: EIAL LC Vol. 5 No. 10 Oct. 1956



DOŠKA, K.; HEIDLOCH, V.; ŽITKA, B.

"Changes of the State of Electrodes in Condensed Discharge." p. 305,  
(ČESKOSLOVENSKÁ ČASOPIS PRO FYZIKU, Vol. 4, No. 3, June-1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (LEAL), LC, Vol. 4  
No. 5, May 1955, Uncl.

SOBRA, K.

CZECH

537.523.4

1690. Changes of state on the electrodes in condensed discharges. V. HERMOCIT, B. ZITKA AND K. SOBRA. *Czech. J. Phys.*, 4, No. 4, 486-95 (Nov., 1954) in Russian. Summary (1½ pp.) in English.

An experimental study of the electrode spots in condensed spark discharges. On the assumption that the discharge current flows into the luminous area of the spots, local current densities  $\sim 10^3$  A/cm<sup>2</sup> occur. Various techniques are described with which, for example, the spot movements during the discharge may be followed.

J. D. CRAGGS

ROW  
K22

SOBRA, KAREL.

Choroby drubeze. Praha, Statni pedagogicke nakl., 1955.  
208 p. (Ucebni texty vysokych skol)

SOURCES: EEAL LC Vol. 5 No. 10 Oct. 1956

SOBRA, <sup>Karel</sup> CZECHOSLOVAKIA/Optics - Photography

K-13

Abs Jour : Ref Zhur - Fizika, No 8, 1958, No 19468

Author : Sobra Karel

Inst : Not given

Title : High Speed Photographic Camera

Orig Pub : <sup>6</sup>kosl. casop. fys., 1956, 6, No 1, 55-59

Abstract : No abstract

Card : 1/1

SOBRA, K.

Current density in anode spots of spark discharges in the air under atmospheric pressure.

P.. 175 (Ceskoslovenska Morfologie. Vol. 5, no. 4, 1957, Praha, Czechoslovakia)

Monthly Index of Fast European Accessions (EEAI) LC. Vol. 7, no. 2,  
February 1958

*Sobra Karel*  
CZECHOSLOVAKIA/Electronics - Gas Discharges and Gas Discharging Instruments H-7

Abs Jour : Ref Zhur - Fizika, No 4, 1958, No 8741

Author : Sobra Karel  
Inst : Institute for Technical Physics, Czechoslovak Academy of Sciences, Prague, Czechoslovakia  
Title : Current Density in Anode Spots of Spark Discharges in Air Under Atmospheric Pressure.

Orig Pub : Geskosl. casop. fys., 1957, 7, No 2, 175-181

Abstract : An investigation of anode spots in spark discharges at atmospheric pressure was made by photographing the anode spots with a high speed photographic camera and by taking oscillographs of the anode current. To obtain current pulses of 500 to 5,000 amp at a duration of 100 to 0,000 microseconds, the discharge of a capacitor through a thyatron was used. The processes in the spot were strongly effected by the surface cleanliness (particularly in the case of anodes made of tin, cadmium, and zinc). In the case of strongly oxidized materials, the spot

Card : 1/2

was broken up into individual parts, which did not change the position during the entire period of glow of the spark. In the case of pure surfaces, the spot could also consist of individual parts, however the erosion trace, left by the spot, was considerably greater. The fixation of the spot, in the case of an oxidized surface, is due to a lower heat conductivity and greater melting temperature of the oxides compared with the pure material. In the presence of oxide, the current density also increases. In the case of commercial carbon, the internal impurities act in analogy with surface oxides. For spectrally pure carbon, the current density was constant during the discharge and equal to the final value for the technical carbon. The measurement data showed that the current density at different anode materials ranges from  $2$  to  $8 \times 10^4$  amp/cm<sup>2</sup>. If one assumes uniform distribution of current over the spot, then it is possible to separate several groups of materials, which have constant values of current per atom of surface. Bibliography, 17 titles.

Card : 2/2

ADS JOUR : REF ZHUR - FIZIKA, NO 4, 1958, NO 8742

Author : Sobra Karel  
Inst : Not Given  
Title : Current Densities in the Anode Spots of Spark Discharges in Air at Atmospheric Pressure.

Orig Pub : Chekhozl. fiz. zh., 1957, 7, No 3, 311-319

Abstract : See also Abstract 8741

*Sobra Kard*

CZECHOSLOVAKIA/Electronics - Electrical Discharges in Gases and H  
Gas Discharge Apparatus.

Abs Jour : Ref Zhur Fizika, No 10, 1959, 23086

Author : Sobra, Kard

Inst :

Title : Effect of the Material of the Anode on the Formation of  
a Positive Column of a Glow Discharge

Orig Pub : Chekhosl. fiz. zh., 1958, 8, No 5, 614-616

Abstract : See Referat Zhur Fizika, 1959, No 9, 20742.

Card 1/1

- 71 -

CZECHOSLOVAKIA/Electronics - Cathode Ray Tubes and TV Pickup  
Tubes.

H

Abs Jour : Ref Zhur Fizika, No 9, 1959, 20742

current in the individual anodes indicated whether the material of the anode influences the positive column of the glow discharge. The discharge occurred in a pumped-out glass tube 50 mm in diameter, the discharge length being approximately 150 mm. The cathode was an iron cylinder (source voltage 1500 v) or a tungsten wire 0.14 mm in diameter (voltage 40 - 60 v). The discharge current was measured in the interval from 1 to 10 ma in the case of emission from a cylinder or in the interval from 1 to 100 ma in the case of emission from the wire. The investigated anodes were half-round plates, on the active surface of which there was deposited, electrolytically or by some other method, layers of chemically-pure investigated substances. The measurements were made at pressures of  $10^{-1}$  -  $10^{-3}$  mm mercury. The vapors of the anodes were covered with the following

Card 2/3



CZECHOSLOVAKIA/Electronics -- Cathode Ray Tubes and TV Pickup  
Tubes.

H

Abs Jour : Ref Zhur Fizika, No 9, 1959, 20742

substances: Cu-Zn, Ag-Sb, Ni-Fe, Bi-Pb. The results  
of the measurements have shown that the anode current is  
proportional to the area of the active surface of the anode  
per atom. -- S.F. Shushurin

Card 3/3

- 72 -

Z/034/62/000/009/004/007  
E073/E535

AUTHOR: Šobra, K.

TITLE: Method of determining the structure of material and  
of measuring the distance between atoms, and equipment  
for utilizing this method  
Patent Application Class 42k, 48, PV 444-60 dated  
21.1.1960

PERIODICAL: Hutnické listy, no.9, 1962, 671

TEXT: The method is based on determining the distribution  
between two anodes of the cathode current of a glow discharge,  
whereby one of the anodes is made of the tested material whilst  
the other is a known reference material. From the ratio of the  
measured currents and the known atomic radius of the reference  
material, the atomic radius of the investigated material is  
calculated. The subject matter of the invention consists in the  
fact that after determining the anode currents, measured at an  
equal potential of the anodes, the anode voltages are changed in  
such a way that the anode currents equalize. Then, the structure  
of the material is determined from the known relation between the  
Card 1/2

Method of determining the ...

Z/034/62/000/009/004/007  
E073/E535

magnitude of the inter-anode voltage when the currents are equal, and the ratio of the anode currents when the anodes have the same potential. The atomic radius is measured during gradual melting or during gradual solidification of the material which is being investigated. The application contains two schemes (circuit diagrams) of the instruments under consideration.

[Abstractor's note: Complete translation.]

Card 2/2

L 8265-66 EWT(1)/ETC/EPF(n)-2/EWG(m) IJP(c) AT

ACCESSION NR: AP5018475

CZ/0055/65/015/007/0534/0535

AUTHOR: <sup>44, 55</sup> Sobra, K.; <sup>44, 55</sup> Kalivoda, L'; <sup>44, 55</sup> Hanitz, F. 21  
23

TITLE: Contribution to study of splitting of plasma shock waves in accelerating tube

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 15, no. 7, 1965, 534-535, and insert on p. 540a

TOPIC TAGS: <sup>21, 44, 55</sup> plasma shock wave, shock wave structure, <sup>21, 44, 55</sup> plasmoid acceleration, plasma magnetic field

ABSTRACT: The authors have observed that when a shock wave is accelerated between straight conductors in a plasma, the plasmoids are emitted with different velocities, thus indicating a splitting of the shock wave. Since this phenomenon is similar to that occurring in a Marshall jet, the authors attempt to attribute it to a similarity in the configuration of the internal magnetic field in both cases. Just as in the Marshall tube the magnetic field at the middle conductor is larger than at the jacket, so is the magnetic field inside straight conductors much larger at the two conductors than in the middle between them. The authors therefore express the opinion that one of the main causes of the splitting of the shock wave

Card 1/2

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L 8265-66

ACCESSION NR: AP5018475

in a tube of straight conductors and of the plasmoid and the Marshall jet is the great nonuniformity of the internal magnetic field. "This work was carried out at the instigation of Assistant Professor J. Kracik to whom the authors are grateful." Orig. art. has: 2 figures.

ASSOCIATION: Institute of Solid State Physics, Czechoslovak Academy of Sciences,  
Prague; Electrotechnical Faculty, Czechoslovak Technical University, Prague

SUBMITTED: 01Mar65

ENCL: 00

SUB CODE: ME

NR REF SOV: 000

OTHER: 000

CC  
Card 2/2

SOBROWOLSKA H.

PRZESMYCKI, Feliks; SOBROWOLSKA, Halina; FELTYNOWSKI, Antoni; STANCZYK,  
Regina; WALKOWSKA, Elzbieta; ZYCH, Zofia; (techniczny wspoludzial)  
CIEPINSKA, Swietlana; ZGORZELSKA, Krystyna

Laboratory characteristics of the epidemic of influenza in 1953.  
Med. dosw. mikrob. 6 no.3:241-251 1954.

1. Z Oddzialu Wirusologii Panstwowego Zakladu Higieny. Kierownik:  
prof. dr.F. Przesmycki.  
(INFLUENZA, epidemiology,  
Poland, statist. analysis)

SOBROWOLSKI, S.

"For the living traditions."

p. 3 (Zolnierz Polski) No. 1, Jan. 1958  
Warsaw, Poland

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

SOB'TEL' D.

How a bank's sanctions are evaded. Den. i kred. 14 no.12:  
41-42 D '56.

(MLRA 10:2)

(Banks and banking) (Industrial management)



ACC NR: AR6021230

SOURCE CODE: UR/0271/66/000/003/A027/A027

AUTHOR: Zagorskiy, V. T.; Birin, G. D.; Sobstel', G. M.

TITLE: The maximum power of a frequency converter

SOURCE: Ref. zh. Avtomat telemekh i vychisl tekhn, Abs. 3A220

REF SOURCE: Mezhevuz, sb. tr. Zap.-Sib. sovet po koordinatsii i planir. nauchno-issled. rabot po tekhn. i yestestv. naukam, vyp. 4, 1965, 116-121

TOPIC TAGS: frequency converter, semiconductor device, transistorized circuit

ABSTRACT: To increase the output power of a frequency converter using direct-coupled transistors, the following recommendations are made: a) operate the converter with singular input-to-output frequency ratios to assure a uniform transistor loading with average current; b) to reduce switching losses and losses during operation in transistors, a compound transistor circuit should be used in series with a semiconductor diode, and to reduce losses in the second transistor due to deep saturation, a resistance should be used in its collector circuit, and c) use pulsed transistor overloading to preserve their nominal average loading. [Translation of abstract] Bibliography of 6 titles. V. L.

SUB CODE: 09

Card 1/1

UDC: 62-52:621.314.26

L 13881-66 EWT(1)

ACC NR: AP6030583

SOURCE CODE: UR/0413/66/000/016/0065/0065

INVENTOR: Zagorskiy, V. T.; Birin, G. D.; Sobstel', G. M.

ORG: none

TITLE: Semiconductor frequency converter. Class 21, No. 184966. [announced by Institute of Automation and Electrometry, SO AN SSSR (Institut avtomatiki i elektrometrii SO AN SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 65

TOPIC TAGS: frequency converter, semiconductor device

ABSTRACT: This Author Certificate introduces a semiconductor frequency converter with a direct-coupled master oscillator circuit (see Fig. 1). To increase the output

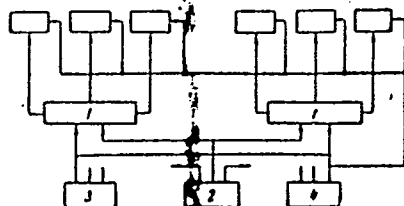


Fig. 1. Frequency converter

- 1 - Control block; 2 - master oscillator;
- 3 - load current direction indicator;
- 4 - supply voltage polarity indicator;

power of the converter by returning the idle current to the power supply line, a supply voltage polarity indicator and a load current direction indicator are used.

Card 1/2

UDC: 621.314.26: 621.315.592 004

L 43881-66

ACC NR: AP6030583

These indicators control the off-duty factor of the pulses produced by transistors acting as power elements. To reduce switching losses, power diodes are connected in series with the transistors. Org. art. has: 1 figure. [JR]

SUB CODE: 09/ SUBM DATE: 03Aug63/ ATD PRES: 5075

Card 2/2 mjs

L 47906-66 ENT(1)

ACC NR: AR6016015

SOURCE CODE: 0271/66/000/001/A019/A019

INVENTOR: Zagorskiy, V. T.; Birin, G. D.; Sobstel', G. M.

40B

TITLE: Controlled <sup>25</sup>frequency converters using high-power elements with a key characteristic

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 1A130

REF SOURCE: Mezhvuz. sb. tr. Zap. -Sib. sovet po koordinatsii i planir. nauchno-issled. rabot po tekhn. i yestestv. naukam, vyp. 4, 1965, 110-115

TOPIC TAGS: frequency converter, thyristor, transistor

ABSTRACT: Controlled frequency converters (CFC) using high-power elements with a key characteristic (transistors or thyristors) are investigated. The CFC circuits in question have no intermediate a. c. to d. c. conversion for further inversion. The power section of the CFC is designed as a reversible bridge circuit (3 single-phase CFC using bridge circuits). The circuit operation is

Card 1/2

UDC: 62-52:621.314.26

I. 47096-66

ACC NR: AR6016015

O

described. The use of this circuit permits exclusion of short-circuit currents, in the CFC groups and virtually currentless switching between the groups; it is possible therefore to avoid the use of reactors. Switching losses equal about one half as numerous as in CFCs using intermediate conversion (rectification). The absence of reactive elements in the power circuit makes it theoretically possible to obtain an unlimited range of frequency variations. Orig. art. has: 4 illustrations, and a bibliography of 7 titles. T.R. Translation of abstract [DW]

SUB CODE: 09/

hs

Card 2/2

L 00043-67 ENT(1)/EEC(k)-2

ACC NR: AP6035864

SOURCE CODE: UR/0413/66/000/020/0076/0077

INVENTOR: Gorelikov, N. I.; Klistorin, I. P.; Sobstel', G. M. 26

ORG: none

TITLE: <sup>45</sup> Digital wattmeter. Class 21, No. 187147. [announced by Institute of Automation and Electrometry, Siberian Branch, AN SSSR (Institut avotmatiki i elektrometrii Siberskogo otdeleniya AN SSSR)]

SOURCE: Izobreteniya promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 76-77

TOPIC TAGS: wattmeter, power meter, electric measuring instrument

ABSTRACT: An Author Certificate has been issued for a digital wattmeter (see Fig. 1) which contains a shunting element with a voltage drop meter in the current-measuring circuit and a potentiometer with constant input impedance (provided by two variable resistors) in the voltage-measuring circuit. To increase both the accuracy and the frequency range of measurements, the variable resistors of the potentiometer take the

Card 1/2

UDC: 621.317.725:681.14

L 09943-67  
ACC NR: AP6035864

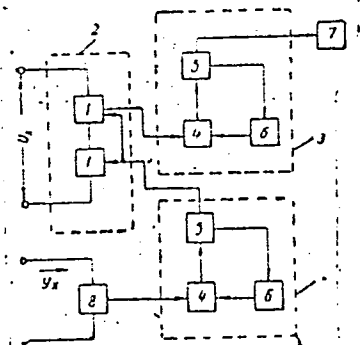


Fig. 1. Digital wattmeter

1 - Variable resistor; 2 - potentiometer;  
3 - voltage drop meter; 4 - two-position  
comparison block; 5 - control block;  
6 - compensating voltage shaper; 7 - read-  
out indicator; 8 - shunting element.

form of controlled digital resistors in a dual-decade circuit. Each of the voltage drop meters acts as an analog-to-digital converter. Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 19Nov65/ ATD PRESS: 5105

Cord 1/6

SOBSTAVL', M.M., kandidat meditsinskikh nauk

Subastragalar dislocation of the foot. Ortop.travm. i prtotez. 17  
no.6:118 N-D '56. (MLRA 10:2)

1. Iz kafedry operativnoy khirurgii (zaveduyushchiy - professor  
A.N.Glinskiy) Novosibirskogo meditsinskogo instituta i iz travmato-  
logicheskogo otdeleniya (zaveduyushchiy - V.Z.Kotlyar) 4-y kliniche-  
skoy bol'nitsy (glavnyy vrach - K.A.Dement'yev)  
(FOOT--DISLOCATION)



SOBTEL', M.M.

Suturing a knife wound of the left ventricle. Nov.khir.arkh. no.4:  
79-80 J1-Ag '57. (MIRA 10:11)

1. Kafedra operativnoy khirurgii Novosibirskogo meditsinskogo  
instituta.

(HEART--WOUNDS AND INJURIES)

SOBSTEI', M.M.

Experimental studies on the hemostatic dependability of  
sutures in spleen injuries. Eksp.khir. 4 no.2:13-16  
Mr-Apr '59. (MIRA 12:5)

1. Iz kafedry operativnoy khirurgii s topograficheskoy  
anatomiyey (zav. - dots. N.K.Dits) i kafedry normal'noy  
anatomii (zav. - prof. K.V.Romodanovskiy) Novosibirskogo  
meditsinskogo instituta (dir. - prof. G.D.Zalesskiy).

(SPLEEN, wds. & inj.  
exper., hemostatic angiorrhaphy (Rus))

VOSEVODIN, A.F.; GRUCHENSKIY, M.S.; NIKIFOROVSKAYA, V.S.; PRUTVITS, N.A.;  
SUBSTEL', N.B.

Calculation of unsteady flow on the Tvertsa River by means of  
electronic computers. Trudy GGI no.121:88-104 '65.

(MIRA 18:8)

SELEZNEVA, A.N.; SOBTSEV, G.D.

Introduction of new purifier apparatuses. Bum.prom. 32 no.2:11-15  
F '57. (MLRA 10:5)

1.Kamskiy tsellyulozno-bumashnyy kombinat.  
(Woodpulp industry)

SOBTSEV, G.D.; ISAYEVA, A.V., inzh.-khimik

"Harmful" and "harmless" resins. Bum.prom. 37 no.9:28 S  
'62. (MIRA 15:9)

1. Byvshiy nachal'nik otbel'no-ochistnogo uchastka Kamskogo  
kombinata (for Sibtsev). 2. TSellyuloznyy tsekh Kamskogo  
kombinata (for Isayeva).  
(Woodpulp) (Gums and resins)

TACIKOWSKI, Jan; SOBUSIAK, Tadeusz

Tool steel diffusion chrome hardening in powders. Inst mech  
precyz 10 no.1:32-50 '62.

L 12286-63

EWP(Q)/EWT(M)/BDS AFFTC/ASD  
JD

S/081/63/000/005/043/075

55

AUTHOR: Tacikowski, U. and Sobusiak, T. (P)

TITLE: Diffusion chrome plating of instrument steel using ferrochrome powders 27

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 5, 1963, 353, abstract 5K37  
(Prace Inst. mech. precyzyjnej, 1962, Vol. 10, no. 35, 32 - 50)

TEXT: The effect of granulation of ferrochrome ( $\sim 4\% C$ ) on the thickness and quality of chrome plated layers was studied. The formation of a quality chrome plate on poor chrome plating steels is possible by a very finely granulated ferrochrome (0.001 - 0.005 mm). In cases of good chrome plating steels an increase in the size of the grains of ferrochrome decreases the thickness of the diffused layer. Among the investigated steels, unalloyed high carbon steels (75, N1E) and alloyed chrome and chrome-tungsten steels (NC<sub>4</sub>, NC<sub>6</sub>, MWC) took the chrome plating well. High carbon high chromium steel (NC<sub>10</sub>) and also low alloyed middle carbon steels (WNL, NZ<sub>3</sub>) took the chrome plate poorly. The influence of the type and quantity of the activator in the

Card 1/2

L 12286-63

Diffusion chrome plating of .....

S/081/63/000/005/043/075

powder and the dependence of these factors on the granulation of the ferrochrome was established. The type of activator ( $\text{NH}_4\text{I}$ ,  $\text{NH}_4\text{Cl}$ ) has no effect when the ferrochrome is fine grained. When the ferrochrome is coarse grained the action of  $\text{NH}_4\text{I}$  has a much better effect on the chrome plating. The increase in the number of activators in powder of fine grained ferrochrome brings about a decrease in the thickness of the coat, but with coarse grains, the coat thickens and its quality is affected. The best results in chrome plating are obtained when a fine grained ferrochrome (0.001 - 0.005 mm) containing 0.5 % activator is used. The effect of temperature and time of process on the chrome plating, and also means of regenerating the processed powder of ferrochrome is also described. The article contains a 7 item bibliography. Ya. Papirov.

[Abstractor's note: Complete translation]

Card 2/2



ANNA, Roman: B. 1931, Warszawa

...culus vestibulo-prepositus proprius in the brain stem of  
...og. Folia morph. (Warsz.) 24 no.2:125-139 '65.

... Z Zakładu Anatomii Opisowej i Topograficznej AM w Poznaniu  
(Kierownik: prof. dr. J. Holaszkowski).

SOBYANIN, V.I., inzh.

Jig for centering and assembling ceramic sewer pipes in sections.  
Vod. i san. tekhn. no.11:35 N '64. (MIRA 18:2)

MASTERSKIKH, M.A.; SOBYSEV, A.P.

A rare atmospheric phenomenon. Probl.Arkt.i Antarkt. no.5:83  
'60.

(Tiksi ~~region~~ - Ice)

(MIRA 14:4)

DRASKOVIC, D.; SOCANAC, V.

Use of punched card system by the U.S. railroads. Zeleznice  
Jug 19 no.6:39-46 Je '63.

ROGOJAN, A.; HEINRICH, I.; POP, V.; SOCEANEANTU, A.

Electronic digital computer for teaching purposes. Pul St  
si Tehn Tim 8 no.1:213-227 Ja-Je '63.

ROGOJAN, A.; SOCEANEANTU, A.

Contributions to the study of a logical circuit with transistors.  
Bul St si Tehn Tim G no.1:185-195 Jan-Feb '64.

SOCENEANTU, A.

On the errors of the analog converter code constructed with a direct reading device. Bul St si Tehn 111 9 no.2:525-532 J1-D '64.

1. Submitted June 24, 1964.

ROCH, J.

Results of electric measurements made on the surface of the Czechoslovak Pioneer Mine.

P. 201. (UHLI) (Praha, Czechoslovakia) Vol. 7, no. 6, June 1957

30: Monthly Index of East European Accession (EMAI) LC Vol. 7, No. 5, 1958



BOCH, J.

Results of electrical measurements of mine electrification at the Czechoslovak Pioneer Mine.

P. 388. (UHLI) (Praha, Czechoslovakia) Vol. 7, no. 11, Nov. 1957

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

Soch, J.

5320. A NEW DOUBLE INDUCTION REGULATOR. J. Soch.  
Elektrotech. Obzor, Vol. 48, No. 5, 235-41 (1957). In Czech.  
Conventional and special designs of induction regulators are described in order to compare these with the new design. It consists of three wound-core annular armatures separated by two axial air-gaps. The top and bottom armatures are mounted on a common shaft, and provided with three-phase windings in radial slots on the bottom face of the top armature and on the top face of the bottom armature. The common secondary between the two primaries is rigidly mounted in the frame and carries windings in radial slots on both faces. A four-parallel-branch secondary winding with negligible equalizing currents is discussed. The outer diameter of this machine is about 30% larger than that of a conventional machine but the total height and the copper weight are reduced by half. The manufacturing difficulties of the design are pointed out.  
E. Erdélyi

2

*Peni*

SOCH, J.

Selecting capacity of electric motors for lifting machinery. Pt. 1. p. 5

STROJIRENSTVI (Ministerstvo tezkého strojírenství, ministerstvo přesného strojírenství  
a Ministerstvo automobilového průmyslu a zemědělských strojů)  
Praha, Czechoslovakia  
Vol. 9, no. 1, Jan 1959

Monthly list of East European Accessions (EEAL), LC, Vol. 3, No. 7  
July 1959  
Uncl.

SOCH, S.

Selecting capacity of electric motors for mining machinery. Pt. 2. p. 159

S. ROJIRENSTVI (Ministerstvo težkeho strojirenstvi, ministerstvo presneho strojirenstvi  
Ministerstvo automobiloveho prumyslu a zemedelskych stroju)  
Praha, Czechoslovakia  
Vol. 2, no. 2, Feb. 1950

Monthly list of East European Accessions (EEAI), LC, Vol. 3, no. 7  
July 1950  
Uncl.

SOCH, Jan, inz.

Electrification and automation of mining operations in the  
Soviet Union. Uhli 4 no.12:427-428 D '62.

1. Zavod automatizace a mechanizace, Ostravsko-Karvinske doly,  
Ostrava.

SOCH, Jan, inz.

Control of the axial feed of a turbocompressor rotor.

Uhli 5 no.11:395-396 N '63.

1. Zavod automatizace a mechanizace.

SOCH, Jan, 192.

Supply of electric power for headings and faces. Unit 6  
no.101341-343 O '64.

1. Zavod automatizace a mechanizace National Enterprise,  
Ostrava.

LAURENC, Vilem; SOCH, Karel; NECKAR, Ferdinand, inz., CSc.; ZAK,  
Vladimir, inz.; SLABA, Jaroslav, RNDr.; DVORAK, Dalibor, inz.;  
MASEK, Zdenek, inz.

Discussion. Pt.2. Zpravodaj VZLU no.3:173-176 '63.



*Socha, Andrzej*

POLAND/Organic Chemistry. Organic Synthesis.

G-2

Abs Jour : Ref Zhur-Khiniya, No 9, 1959, 31269

Author : Socha, Andrzej; Eckstein. Zygmunt

Inst : -

Title : On the Simplified Method of Preparation of Cyclooctane.

Orig Pub : Roczn. chem., 1958, 32, No 3, 647-652

Abstract : The method of preparation of cyclooctanone (I) from cycloheptanone (II) with the application of N-methyl-N-nitroso-p-toluenesulfonamide (III) suggested earlier as a source of  $\text{CH}_2\text{N}_2$  (Ref Zhur-Khiniya, 1955, 42923, 48859) is described. The solution of 22.5 g of KOH in 75 ml of 50 percent alcohol is added gradually to 0.75 mole of II and 0.9 mole of III

Card : 1/3

127

POLAND/Organic Chemistry. Organic Synthesis.

G-2

Abs Jour : Ref Zhur-Khiniya, No 9, 1959, 31269

in 225 ml of alcohol and 15 ml of water and stirred for 30 min after that. Then a second lot of reagents is added and all is stirred for 1 hour more; after the addition of KOH has been completed. The solution is acidified with 2 N HCl; stirred with the solution of 300 g of  $\text{NaHSO}_3$  in 600 ml of water for 6 - 8 hours; the bisulfite compound of the non-transformed II is filtered off, washed with absolute alcohol, and the alcohol used for washing is added to the filtrate. The filtrate is boiled for 5 - 6 hours (until the oily layer disappears) and distilled with water (elimination of  $\text{SO}_2$ ). The 1st fraction (700 ml) is distilled for a second time using Vigreux column; the first 350 ml collected is

Card : 2/3

GASIOR, Eugeniusz; SOCHA, Bozena; BOCHYNSKA, Teresa

Application of dialysis in the presence of cation exchanger for isolation of free intracellular aminoacids in bacteria. Chem anal 8 no.2:289-292 '63.

1. Katedra Chemii Fizjologicznej, Akademia Medyczna, Lublin.

P O L .

✓ Regeneration of electrolyte used in electrolytic polishing of carbon steel. I. Oxidation of chromium. Tadeusz Zak and J. Socha (Inst. Met. Aparatury Nauk-Lab., Warsaw) *Prace Inst. Mech.* 4, No. 12, 11-15(1954)(English summary).—Regeneration of spent soln. contg.  $H_2SO_4$ ,  $H_3PO_4$ , and some Cr(III) and Cr(VI) was done by anodic oxidation (I) of Cr(III) to Cr(VI). Pilot-plant investigations were performed on 20 l. of a water soln. contg.  $H_2SO_4$  12.5,  $H_3PO_4$  85%, and  $CrO_3$  1350 g., out of which 600 g. was reduced cathodically to Cr(III) (in order to imitate spent conditions). I was carried out at 100° with a c.d. of 9 on the Pb anode and 200 amp./sq. dm. on the Pb cathode. The surface of the anode was 8 sq. dm. The cathode was surrounded by a ceramic diaphragm. Under these operating conditions  $H_3PO_4$  inhibition of I of Cr was the smallest. When Cu ions were present the cathodic c.d. had to be smaller because Cu lowered the cathodic potential. Elec. co-

lytic polishing of C steel could be carried out with solns. in which Cr(III) content was allowed to build up to a max. of 2%. The spent solns. could then be regenerated until Cr(III) content dropped to approx. 0.5%. During regeneration, which lasted many hrs., the surface of the anode became coated with a fine brown sediment while a small amt. of  $PbSO_4$  settled to the bottom of the diaphragm. It was thought that  $PbO_2$  was the carrier of electrons during I of Cr:  $Pb - 4e^- = Pb^{4+}$  and  $3Pb^{4+} + 2Cr^{+++} + 7H_2O = 3Pb^{2+} + Cr_2O_7^{--} + 14H^+$ . Another possible mechanism of I was as follows:  $2SO_4^{--} - 2e^- = S_2O_8^{--}$  and  $2Cr^{+++} + 3S_2O_8^{--} + 7H_2O = Cr_2O_7^{--} + 6SO_4^{--} + 14H^+$ .  
Frank J. Hendel

POLAND/Chemical Technology - Chemical Products and  
Their Applications - Electrochemical  
Manufacturing. Electrodeposition.  
Chemical Sources of Electrical Current.

I-9

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 8904

Author : Zak, T., and Socha, J.

Inst :

Title : Regeneration of the Electrolyte Used in the  
Electrolytic Polishing of Carbon Steels.  
Part II. Removal of Iron from the Bath.

Orig Pub : Prace, Inst. mech., 1955, 5, No 15, 51-55.

Abstract : The effect of  $H_2SO_4$  concentration on the  
electroosmotic separation of Fe (III) ions  
from the bath during the electrolytic  
polishing of carbon steels has been investi-  
gated. The optimum concentration range was  
found to be 5-10 vol% at 85° with complete  
prior oxidation of the Cr (III) ions. The

Card 1/2

18  
Socha J. Electrolytic Chrome Plating in a Selfsteering Bath.

"Chromowanie elektrolityczne w kąpiel samosterujacej". Przegląd Mechaniczny, No. 6, 1956, pp. 276-283, No. 9, 1956, pp. 327-329, 12 figs., 2 tabs.

A description of the composition of the selfsteering bath and the conditions under which the chrome plating process develops, the dependence of current output on current density and temperature being shown graphically. Among the problems discussed are the working zone of the bath, the characteristics and metallography of chrome plating, such defects in chrome plating as appear when instructions for this process are not strictly followed, the causes of defects and the methods of eliminating them. The advantages of selfsteering baths as compared with the more conventional techniques are: increase in output by current of about 60%; greatly increased working zone; improved resistance properties of the coated parts; improved coating capacity; greatly facilitated additional chrome plating; highly simplified maintenance of baths, and reduced hydrogen liberation which improves the degree of safety in working conditions.

SOCHA, J.

SOCHA, J. Problems of restoring chrome baths. p. 54.

V ol. 29, no. 2, 1956

MECHANIK

TECHNOLOGY

Warszawa, Poland

So: East European Accession, Vol. 6, no. 2, 1957

*Socha J.*

POLAND/Chemical Technology - Chemical Products and Their  
Application. Electrochemical Production.  
Electrodeposition. Chemical Sources of Current.

H-12

Abs Jour : Ref Zhur - Khimiya, No 17, 1958, 58055

Author : Socha Jan, Zak Tadeusz

Inst : -

Title : An Investigation of the Possibility of Perfecting the  
Process of Electrolytic Chrome Plating. Ch. II.

Orig Pub : Prace Inst. mech., 1957 (1958), 7, No 22, 41-44.

Abstract : By a method described earlier (RZhKhim, 1957, 64027)  
the operation of a self-regulating bath (SB) for chrome  
plating, which contains 400 g/l of  $\text{CrO}_3$  (I), was studied.  
An increase of the concentration of I permits obtaining  
good protective-decorative coverings at lower temperatu-  
re and D. The SB plating method is equivalent to the  
usual bath plating method at an I concentration of 275  
g/l; at a higher concentration of I, SB works better.

Card 1/2

- 21 -

POLAND/Chemical Technology - Chemical Products and Their  
Application - Electrochemical Manufacturing.  
Electrodeposition. Chemical Sources of  
Electrical Current.

H-12

Abs Jour : Ref Zhur - Khimiya, No 3, 1958, 8661

covering power of the bath, high grade coatings can be  
produced on articles of complex configuration. Maximum  
yield on the basis of current is around 24% and at D 40  
a/dm<sup>2</sup> the temperature practically does not affect this  
yield.

Card 2/2



L 39925-66 EWP(t)/ETI IJF(c) JD/JG

ACC NR: AT6018298 SOURCE CODE: PO/2540/65/013/002/0001/0008

AUTHOR: Socha, Jan -- Socha, I.; Zak, Tadeusz -- Zhak, T.

33  
B+1

ORG: none

TITLE: Bright gold plating in an acid electrolyte

SOURCE: Warsaw. Instytut Mechaniki Precyzyjnej. Prace, v. 13,  
no. 2(48), 1965, 1-8

TOPIC TAGS: nickel, cobalt, metal plating, electrolyte, ~~gold plating~~,  
GOLD

ABSTRACT: The effect of citric acid, nickel, and cobalt ions on the formation of bright coatings has been investigated. The investigation was based on a hypothesis of the existence of two kinds of brighteners. The polarization, current efficiency, and brightness of coatings in various concentrations of citric acid, nickel, and cobalt salts made it possible to select optimum conditions for bright gold plating. Orig. art. has: 21 figures and 1 table. [Based on authors' abstract] [NT]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 014/

Card 1/1

UDC: 669.218:621.79.025.3

SOCHA, Josef; BASNAK, Vlastimil; SLAMA, Josef; BURIANEK, Ludevit; KREMR, Milan; HRABOVSKY, Vaclav; MICHAEL, Radil, inz.; ONDRACEK, Jaroslav; PEKTOR, Vladimir, inz.

Conference of the Czechoslovak Scientific Technical Society on the present conditions and outlook for development of the tanning industry. Kozarstvi 12 no.12:371-373 D '62.

1. N.p.Svit, Otrokovice (for Socha, Basnak).
2. N.p. Svít, Gottwaldov (for Slama).
3. N.p. Kozeluzne, Bosany (for Burianek).
4. Vyzkumny ustav kozedelny, Otrokovice (for Kremr, Hrabovsky, Michael, Ondracek and Pektor).

SOCHA, M.

Some effective methods of salvaging wornout machine parts. p. 152. (Mechanik, Vol. 30, No. 4, Apr 1957, Warsaw, Poland)

30: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

SOCHA, Marian, magister

The role of the leading Polish technical organization in the  
improvement and completion of technological information.  
Tech praca 16 no.11:877-878 N '64.

SUCHA, Marian, mgr

From experiences of repair services in foreign countries.  
Przegl techn 86 no.11:5 14 Mr '65.

SOCHA, Marian, mgr

Reform of vocational education subject to remarks of the scientific  
and technical associations and the Central Technical Organization.  
Przegl techn 86 no.9:7 23 f. 5.

KRAWCZYNSKI, Feliks, mgr. inz.; SOCHA, Michal, inz.

An installation for washing and cleaning units of the rolling  
stock and their parts. Przegl kolej mechan 14 no.4:109-114  
Ap '62.

ROEHRYCH, K. inz.; SOCHA, M., mgr

6th Conference on Repairs in the German Democratic Republic.  
Przegł mech 21 no.17:546 10 S '62.



SOCHA, Marian, mgr

The Main Commission for the Education of Engineering Personnel  
set up by the Chief Technical Organization. Przegl techn  
no.32:4 12 Ag '62.

SOCHA, M., mgr; ROEHRYCH, K., inz.

Problem of more extensive utilization of machines. Przegl mech 22  
no.1:29 10 Ja '63.

ROEHRYCH, K., inz.; SOCHA, M., mgr

4th National Conference on Repairs of the German Democratic  
Republic. Mechanik 36 no.1:3 of cover '63.

SOCHA, Marian, mgr

International cooperation in improving technical cadres.  
Przegl techn 85 no. 12: 5 22 Mr '64.

EROL, Gerard, inz.; CIERNIAK, Janusz, inz.; SOCHA, Mieczyslaw, inz.

Experiments in applying push-plate conveyers. Rudy i metale  
8 no.9:328-332 S'63.

SOC HA, S.

585

\*The Effect of Technological Processes on the Mechanical Properties of ZnAl 41 Strips (Zn-Al-Cu). S. Socha (*Prace Inst. Minist. Hutn.*, 1934, 6, (2), 74-82).—~~See Socha~~ The casting of ZnAl 41 alloy (Zn ~95, Al 4, and Cu 1%) by continuous and semi-continuous methods is described. Castings of best technological properties were obtained by the semi-continuous method at casting temp. of 405° C., using shallow ingot moulds with removable bottoms and radial cooling. Subsequent hot rolling of 9-mm.-thick strips at 230°-250° C. down to 4-5 mm. thickness, followed by finish-rolling to 1.2 mm. at 80° C. produced strips with 35% elongation. Hardness and resistance to alternating bending stresses was found to increase with the annealing temp. in the range 100°-300° C., with the elongation decreasing and the U.T.S. remaining almost const.—S. K. L.

71  
JH

Socha, S.

POL . .

\*Surface Flaws in Zinc Coatings on Steel Sheets. S. Socha and W. Sudzins. (*Prace Inst. Metal. Huta.* 1954, 6, (5), 247-256).—[In Polish]. Defects occurring in Zn coatings on mild steel rolled in batches or by the Sendzimir method are reviewed. The causes of such flaws were investigated by analysing the effect of prior rolling defects and mill scale. Sheets with various rolling defects were pickled for various times before hot dipping. Increase in the length of pickling time and frequent washing reduced subsequent defects in coatings; overpickling reduced such defects still further, but at the expense of a loss of brightness of the coating. A series of tests were carried out on the reduction of mill scale by molten Zn, using compacts of synthetic  $Fe_2O_3$  immersed in Zn at 450° C. for varying times. Metallographic examination showed large crystals of Fe-Zn in a background of Zn and some un-reduced  $Fe_2O_3$ . The amount of un-reduced  $Fe_2O_3$  increased with increasing sintering temp. of the compacts. Similar experiments on a 0.12% C steel annealed in air at different temp. showed that the scale produced at higher temp. was less susceptible to reduction by Zn. The defects observed were classified according to their appearance as droplet formation or rivulet formation. The former is attributed to local surface concentrations of cementite, leading to decreased adhesion of Zn; the latter to the reduction of scale trapped in surface flaws. This scale, not removed by pickling, leads to the formation of Fe-Zn compounds which locally increase the viscosity of the Zn, and causes uneven flow over the surface.—W. E.

W. E.

SOCHA, S.; MYRONOWICZ, M.

"Protection Against Corrosion of Steel Products by Fireproof Metallic Coverings," P. 125. (WIADOMOSCI, Vol. 22, No. 3, Mar. 1954. Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1, Jan. 1955 Uncl.



SOCHA, S. and MIERDUN, L.

POLAND

"Zinc Alloy Stripes Zn-Al<sub>4</sub>-Cu<sub>1</sub> Based on Rectified NO and Electrolitic EO<sub>1</sub> Zinc," Prace  
Instytutow Ministerstwa Hutnictwa, No. 5-6, Ministry of the Metallurgical Industry, 1955.

Soc HA, S.

MG Zinc alloy strips Zn-Cu and Zn-Al-Cu from rectified zinc NO and electrolytic zinc EO. S. Socha and L. Zwending. *Prace Inst. Metalurg. Hutn.* 7, 283-91 (1955) (English summary).—The two kinds of Zn investigated here, called zinc NO (I) and zinc EO (II), were both very pure, with only traces of Pb, Fe, Cd, Cu, Sb, Sn, and no As. I was a rectified Zn, whereas II was an electrolytically refined one. Both I and II were used to prep. Zn-Cu alloys; ingots and strips were prepd. from such alloys, and the mech. and tech. properties thereof were tested, such as elongation, hardness, drawability, and effects of annealing. In all these alloys it did not make any difference if I or II was used in the prepn. But the corrosion resistance depended greatly upon the kind of Zn used. I imparted a much better corrosion resistance than II, because the traces of metals present in II added up in toto to roughly 3 times the impurities present in I. Werner Jacobson

(1)

of

SOCHA, Stanislaw, dr inz.

Impact strength properties of zinc alloys. Rudy i metale 9 no.2:75-  
81 F 64.

SOCHA, Stanislaw, dr inz.

Reducing properties of fluxes in hot-dip steel galvanizing.  
Rudy i metale 9 no.10:535-541 0 '64.